

AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A computer-readable recording medium having a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:
 - a data area storing at least video data as a transport stream in more than one file, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another; and
 - a navigation area storing at least one navigation list, the at least one navigation list including one or more navigation data items and controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data of the associated file.
2. (Original) The recording medium of claim 1, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.
3. (Original) The recording medium of claim 2, wherein each data block represents at least an intra-coded picture of video data.

4. (Original) The recording medium of claim 3, wherein each data block represents at least one group of pictures (GOP).

5. (Cancelled)

6. (Previously Presented) The recording medium of claim 1, wherein each of the one or more navigation data items provide navigation information for reproducing at least one of the files.

7. (Cancelled)

8. (Previously Presented) The recording medium of claim 1, wherein the at least one navigation data item includes a multiple reproduction path indicator indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

9. (Previously Presented) The recording medium of claim 6, wherein the at least one navigation data item includes a multiple reproduction path indicator indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

10. - 13. (Cancelled)

14. (Original) The recording medium of claim 1, wherein each reproduction path represents a digital channel.

15. (Original) The recording medium of claim 1, wherein each reproduction path represents a sub-

channel of an RF channel.

16. (Previously Presented) A method of recording a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

recording at least video data as a transport stream in more than one file on the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another; and

recording at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data of the associated file.

17. (Currently Amended) A method of reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

reading at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of a plurality of files and providing position data for video data of the associated file; and

reproducing at least the video data as a transport stream in more than one file from a recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another; ~~and~~

~~reproducing at least one navigation list, one or more navigation items and a plurality of~~

~~maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data of the associated file.~~

18. (Previously Presented) An apparatus for recording a data structure for managing reproduction duration at least video data representing multiple reproduction paths, comprising:

a driver for driving an optical recording device to record data on a recording medium; and
a controller for controlling the driver to record at least video data as a transport stream in more than one file on the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another, the controller controlling the driver to record at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data of the associated file.

19. (Previously Presented) An apparatus for reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

a driver for driving an optical reproducing device to reproduce data recorded on a recording medium; and

a controller for controlling the driver to reproduce at least video data as a transport stream in more than one file from the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another, the controller

controlling the driver to reproduce at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data of the associated file.

20. (Previously Presented) A method for creating a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

recording at least video data as a transport stream in more than one file, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another; and

recording at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map, each map being associated with one of the files and providing position data for the video data of the associated file.

21. (Previously Presented) The method of claim 16, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

22. (Previously Presented) The method of claim 21, wherein each data block represents at least an intra-coded picture of video data.

23. (Previously Presented) The method of claim 16, wherein the at least one navigation data item

includes a multiple reproduction path indicator indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

24. (Previously Presented) The method of claim 16, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

25. (Previously Presented) The method of claim 17, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

26. (Previously Presented) The method of claim 25, wherein each data block represents at least an intra-coded picture of video data.

27. (Previously Presented) The method of claim 17, wherein the at least one navigation data item includes a multiple reproduction path indicator indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

28. (Previously Presented) The method of claim 17, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

29. (Previously Presented) The apparatus of claim 18, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

30. (Previously Presented) The apparatus of claim 29, wherein each data block represents at least an intra-coded picture of video data.

31. (Previously Presented) The apparatus of claim 18, wherein the at least one navigation data item includes a multiple reproduction path indicator indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

32. (Previously Presented) The apparatus of claim 18, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

33. (Previously Presented) The apparatus of claim 19, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

34. (Previously Presented) The apparatus of claim 33, wherein each data block represents at least an intra-coded picture of video data.

35. (Previously Presented) The apparatus of claim 19, wherein the at least one navigation data item includes a multiple reproduction path indicator indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

36. (Previously Presented) The apparatus of claim 19, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.